

Amendments to the Specification

Please replace the paragraph beginning on page 1, line 3 with the following amended paragraph:

The present patent application claims priority as a continuation-in-part of co-pending U.S. Nonprovisional Patent Application Serial No. [[____]] 10/750,483, attorney docket number H0006074-0760 (1100.1233101), filed December 31, 2003, and entitled "GAS IONIZATION SENSOR", which is hereby incorporated by reference in its entirety in the present application. The present patent application claims priority as a continuation-in-part of co-pending U.S. Nonprovisional Patent Application Serial No. 10/749,863, attorney docket number H0005829-0760 (1100.1222101), filed December 31, 2003, and entitled "MICRO-PLASMA SENSOR SYSTEM", which is hereby incorporated by reference in its entirety in the present application.

Please replace the paragraph beginning on page 3, line 15 with the following amended paragraph:

Figure 1 is a cross-sectional view of a pump 10. High frequency micro discharge devices (MDDs) 14 and 16 [[15]] may generate ion-electron pairs. Relatively larger ions [[16]] 17 may drift towards the (-) electrode 11 and drag neutral molecules along. The ion-drift pump 10 may work on the principle of viscous drag of ions attracted by an applied e-field, so that their cumulative surface drags the neutral molecules along to the extent of establishing a balance between this drag and the drag between the induced flow 18 and the capillary tube (or MEMS channel) wall 13. The former may be given by the mobility, number density and volume of the ions in the applied e-field (Stokes' Law), whereas the latter may be given by Poiseuille's Law of capillary flow. The term "fluid" may be used as a generic term that includes gases and liquids as species. For instance, air, gas, water and oil are fluids.